

FIG. 7

262

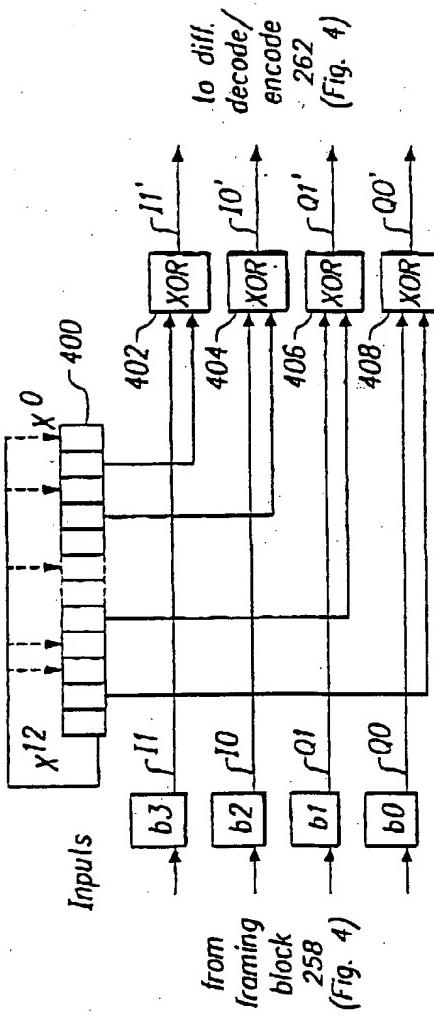


FIG. 8

$\text{Quad} = 2*I1' + Q1'$; - Map Quadrant Tag [0 1 2 3]
 $\text{Phi}' = [0 1 3 2]$; - to Angle = [0 1 2 3]
 $\text{Angle} = \text{Phi}(\text{Quad})$
 $\text{Sum} = (\text{Sum} + \text{Angle}) \text{modulo } 4$;
 $I1'' = \text{bit 1 of Sum}; I0'' = I0'$;
 $Q1'' = \text{bit 0 of Sum}; Q0'' = Q0'$;

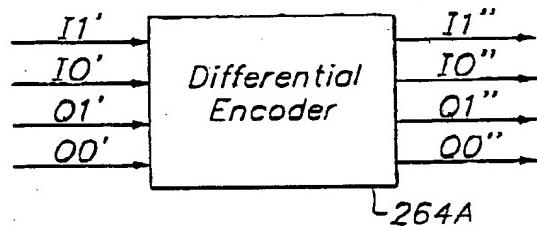


FIG. 9

$\text{Angle} = 2*RxIs' + RxQs'$;
 $\text{Phi}' = [0 1 3 2]$;
 $\text{Diff} = (\text{Phi}'(\text{Angle}) - \text{Phi}_0) \text{ modulo } 4$;
 $\text{Phi}_0 = \text{Phi}'(\text{Angle})$;
 $RxIs = \text{bit 1 of Phi}'(\text{Diff}); RxIm = RxIm'$;
 $RxIs = \text{bit 0 of Phi}'(\text{Diff}); RxQm = RxQm'$;;

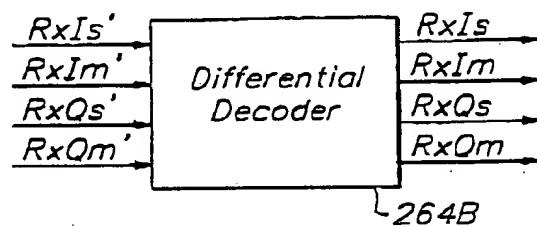
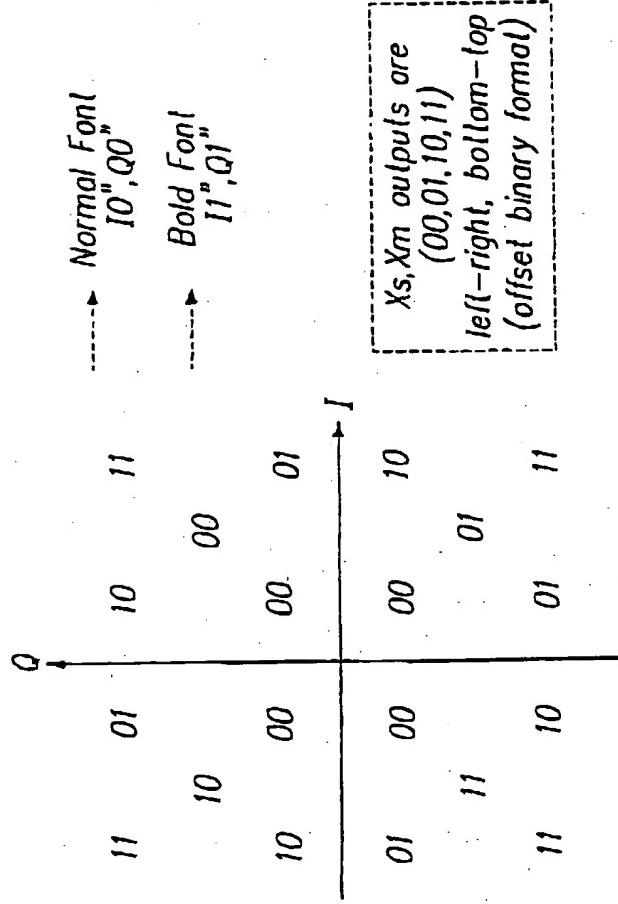


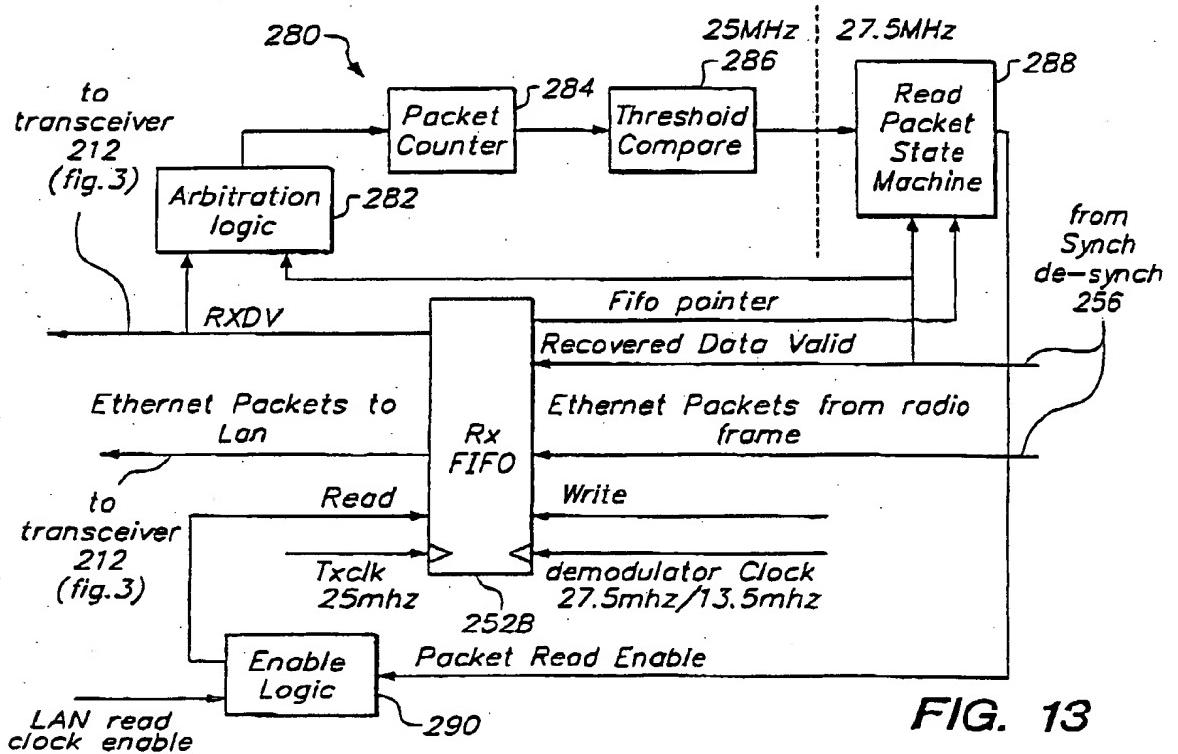
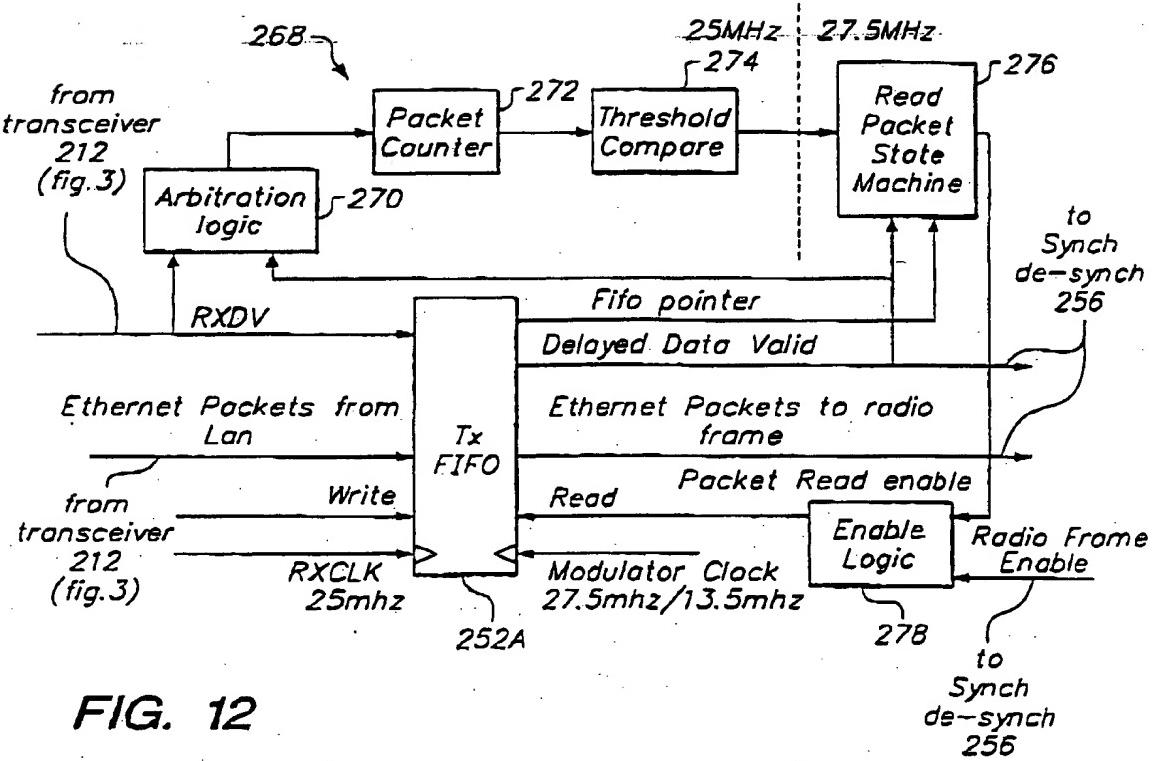
FIG. 10

FIG. 11



Input Symbols
Shown in Output
Symbol Position

X_s, X_m outputs are
(00,01,10,11)
left-right, bottom-top
(offset binary format)



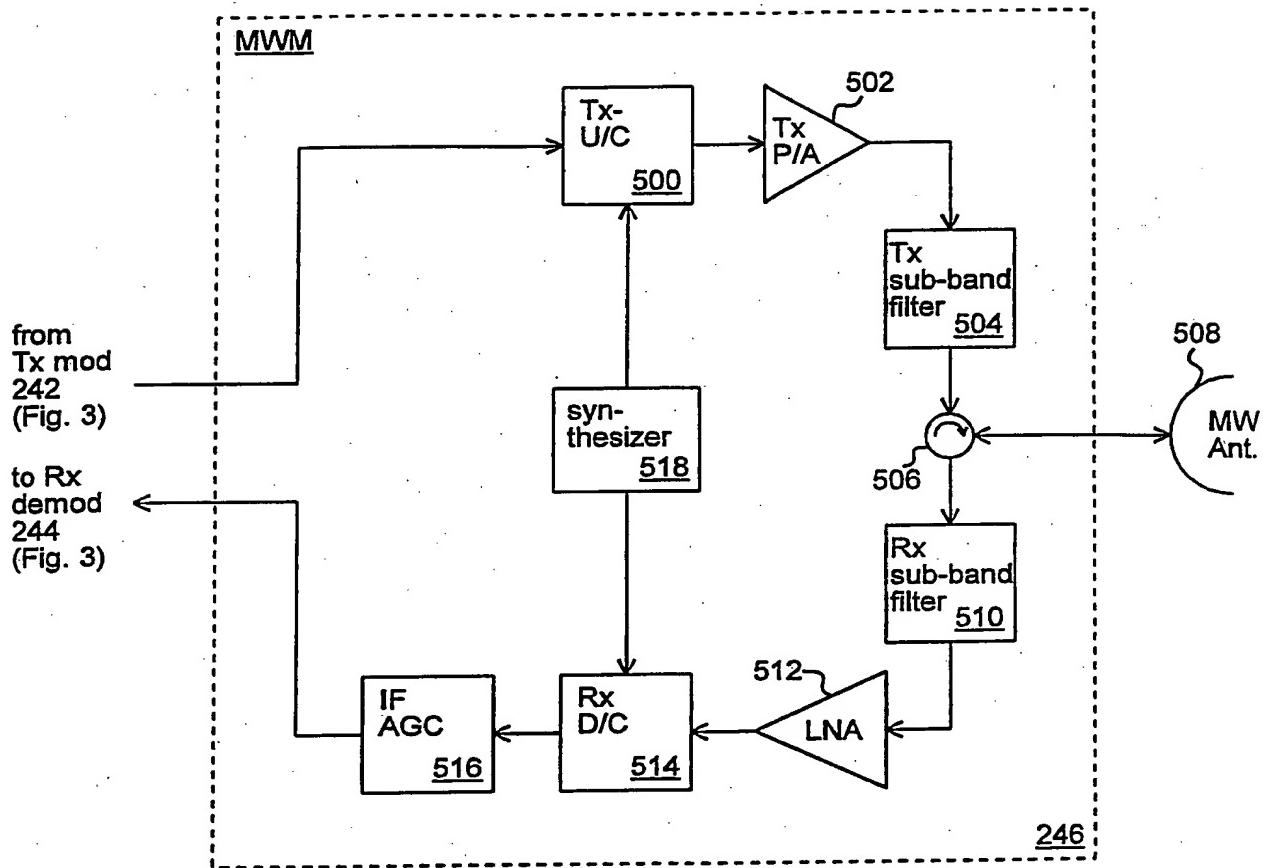


Fig. 14

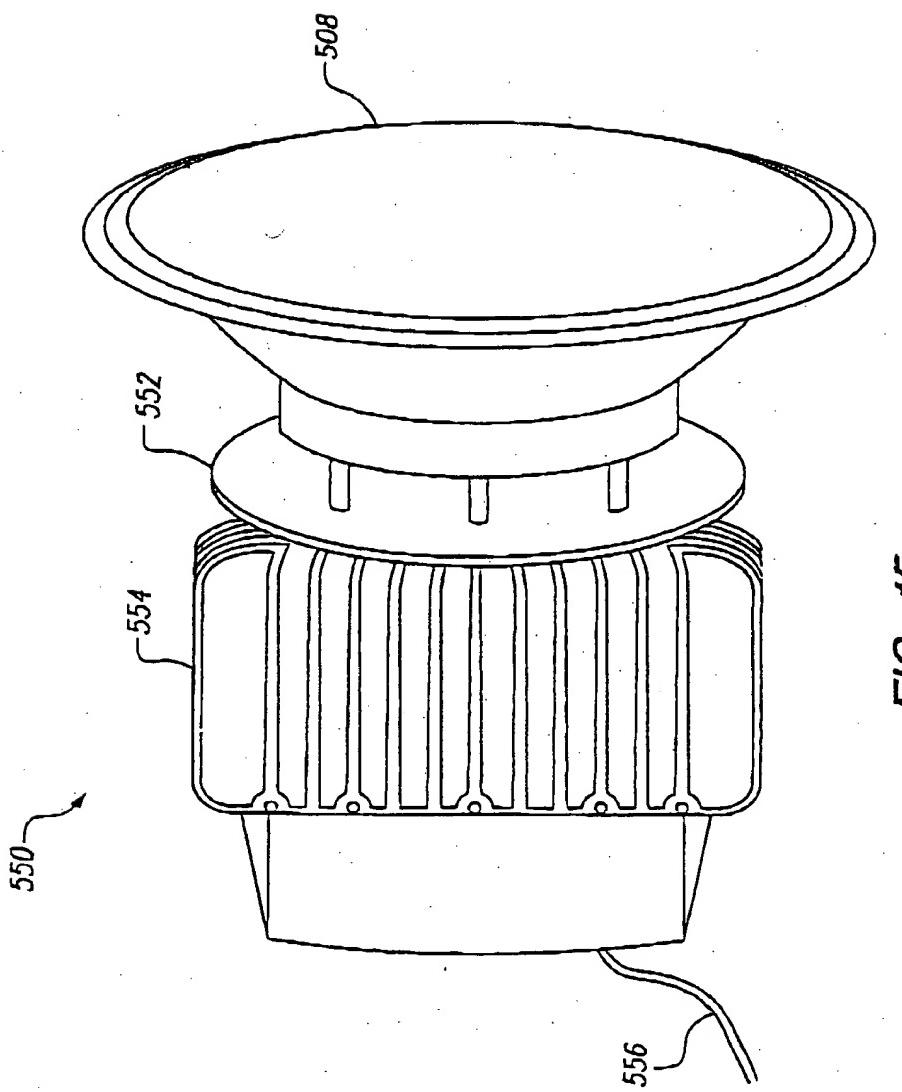


FIG. 15

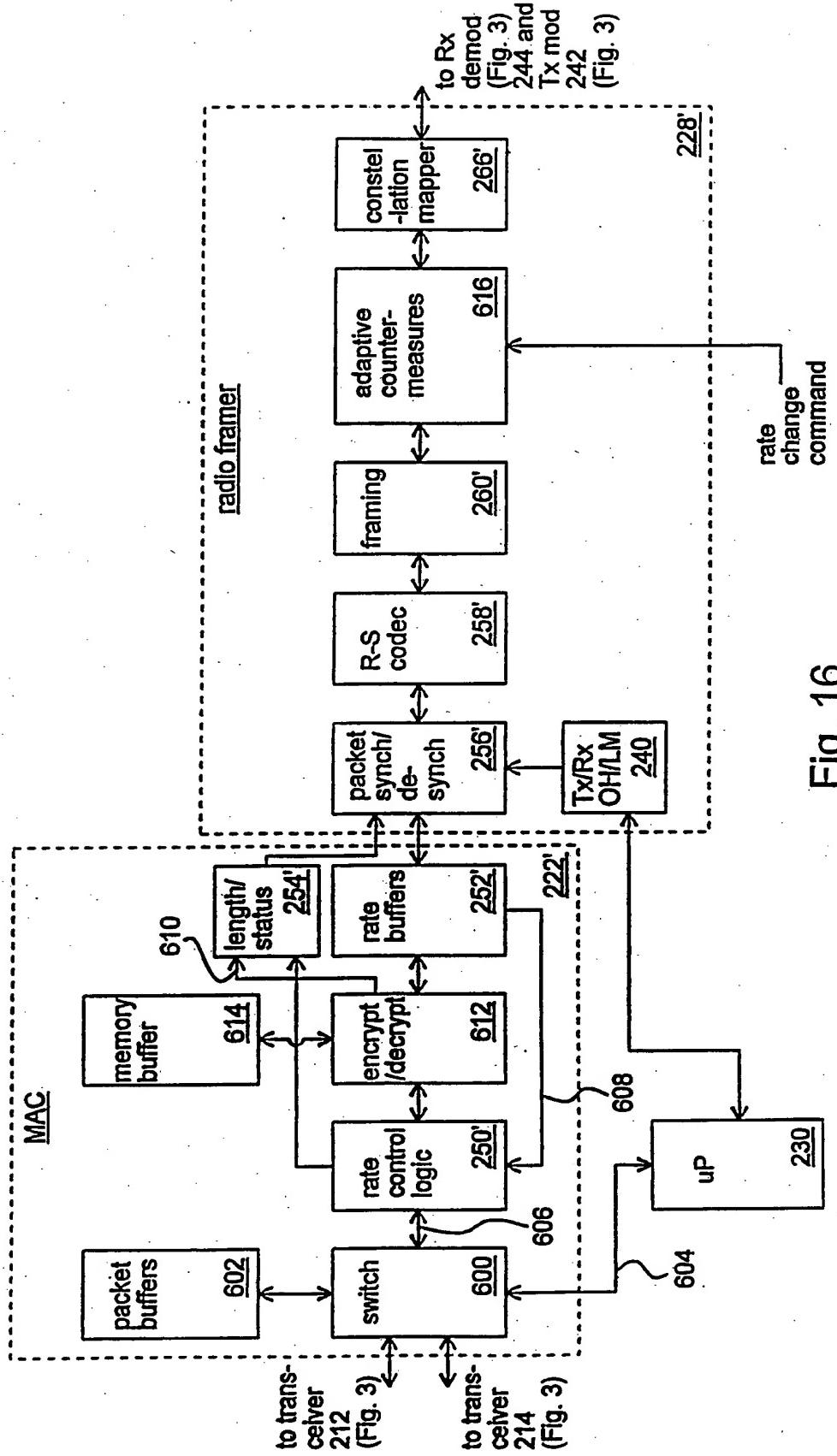


Fig. 16

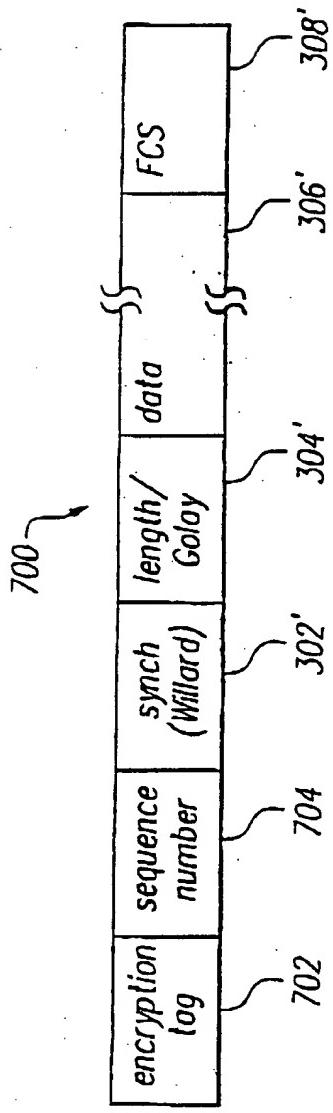
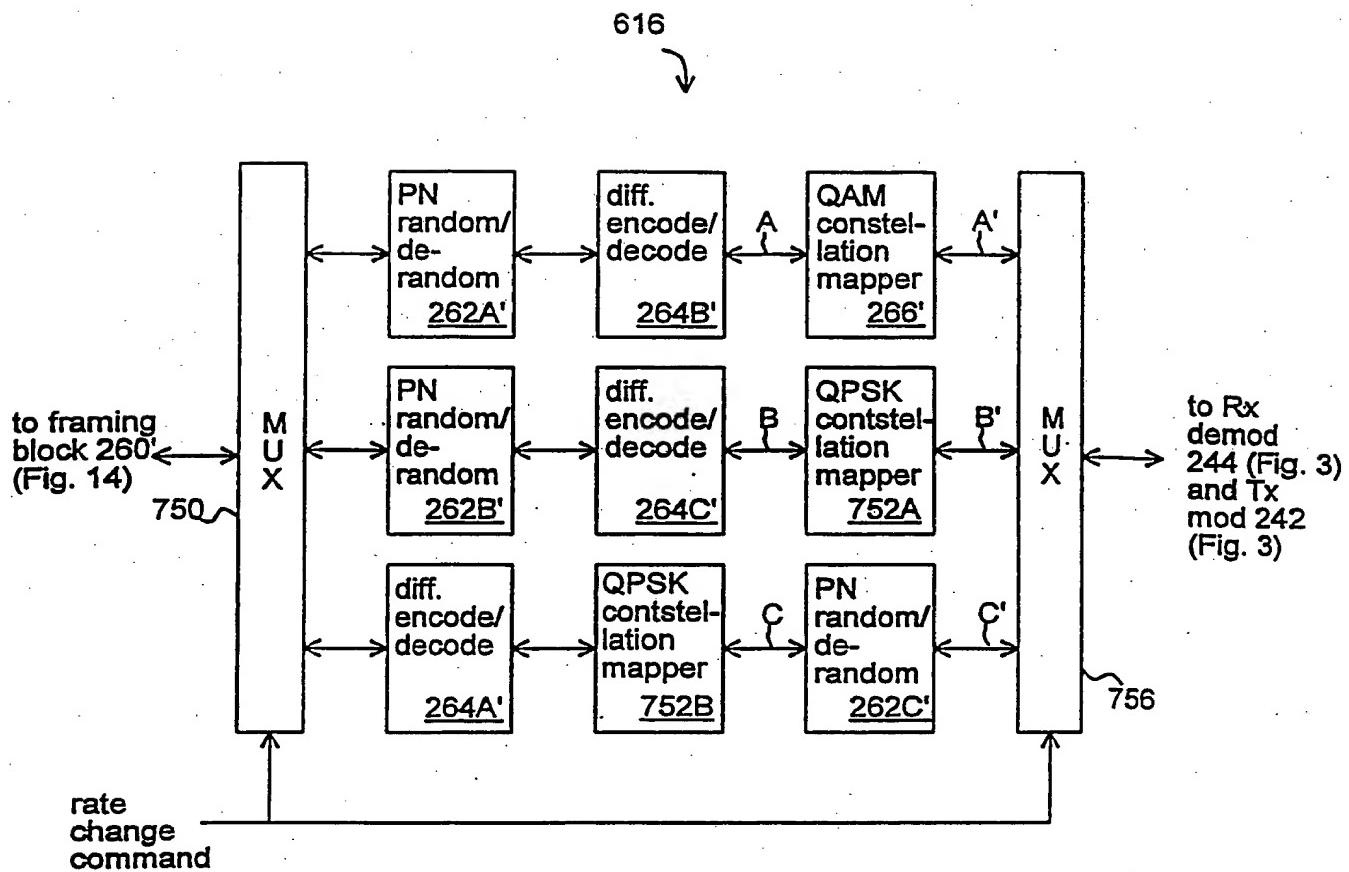


FIG. 17



A: data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols (mega-symbols)/second

A': data rate = 4 bits/symbol, symbol rate = 27.5 Msymbols/second

B: data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

B': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

C: data rate = 2 bits/symbol, symbol rate = 3.4375 Msymbols/second

C': data rate = 2 bits/symbol, symbol rate = 27.5 Msymbols/second

Fig. 18

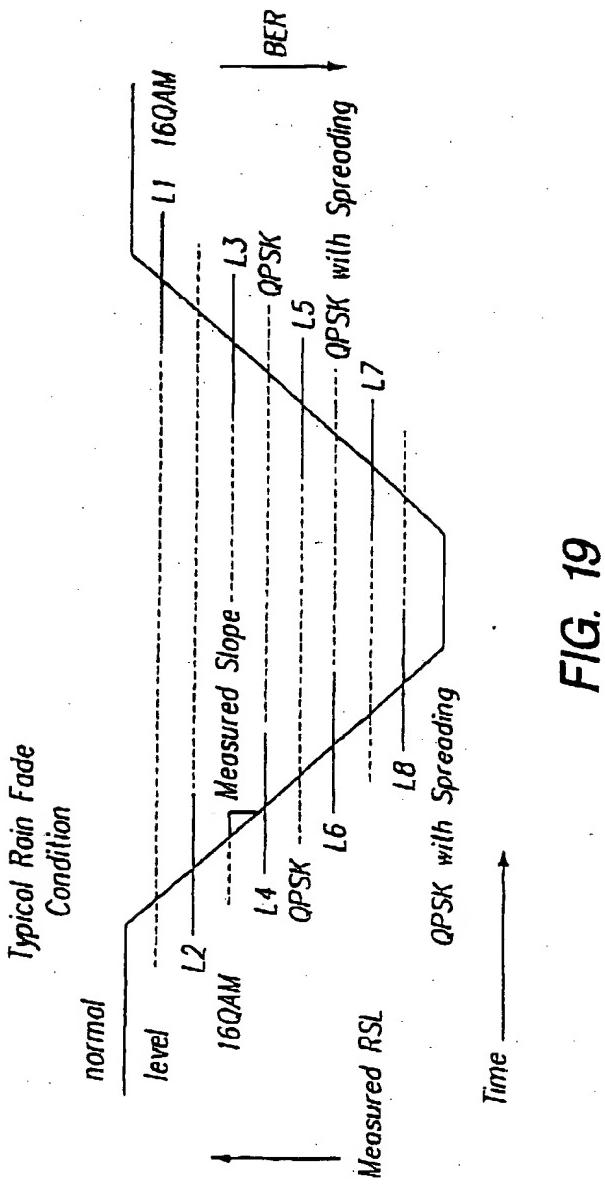


FIG. 19

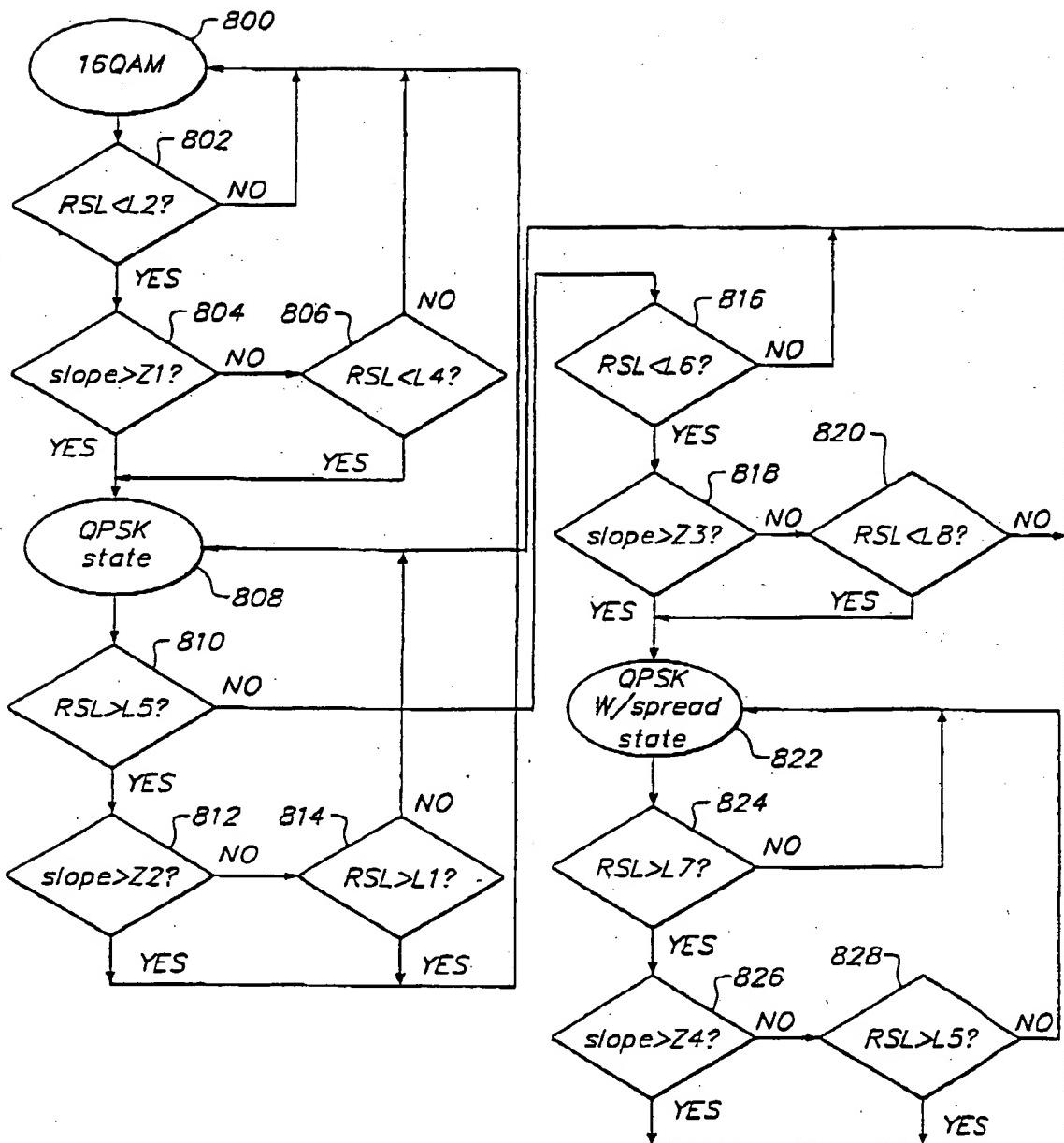


FIG. 20

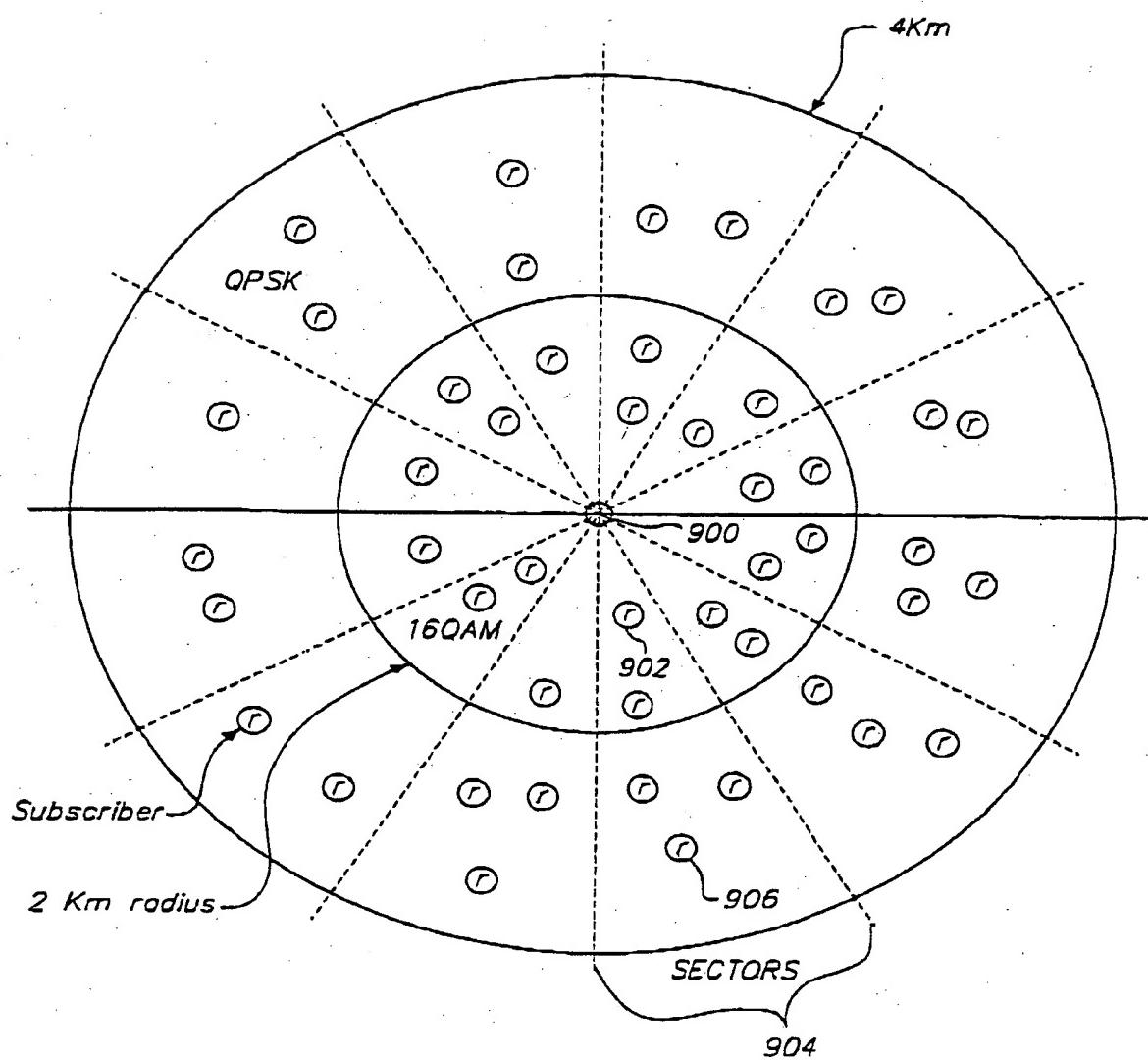


FIG. 21

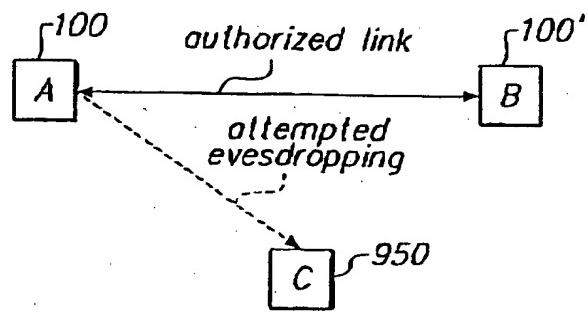


FIG. 22

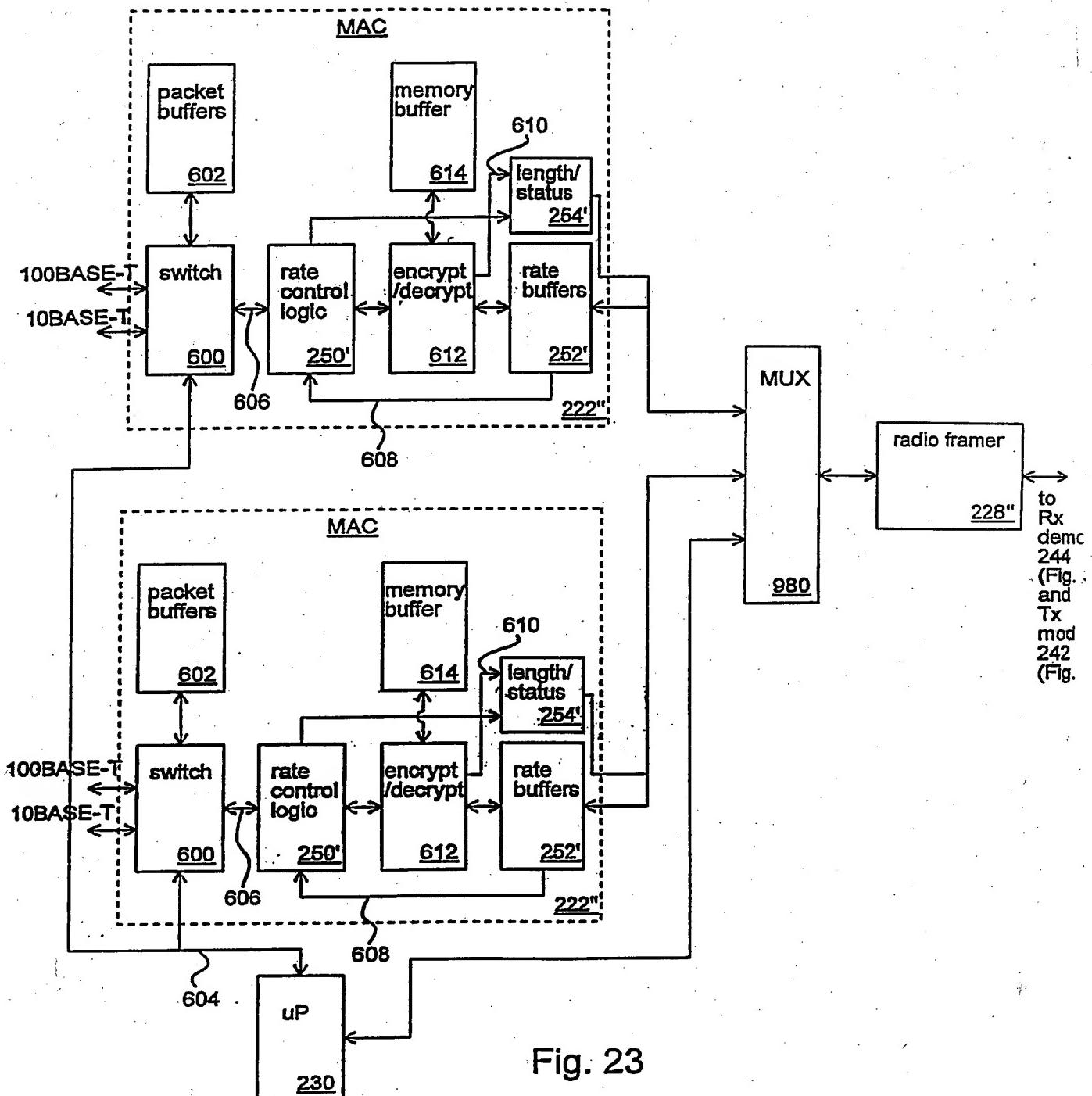


Fig. 23